
REPORT OF THE DIRECTOR OF THE MINT.

REPORT

OF

THE DIRECTOR OF THE MINT.

OFFICE DIRECTOR OF THE MINT,
Treasury Department, October 13th, 1874.

SIR: In compliance with the provisions of the coinage act of 1873, I have the honor to submit the following report of the operations of the mints and assay-offices for the fiscal year ended June 30, 1874.

The amounts of gold and silver deposits and purchases, coins struck, and bars manufactured, were as follows:

DEPOSITS AND PURCHASES.

Gold deposits	\$68,861,594 97
Silver deposits and purchases.....	15,122,151 31
Total amount received and operated upon.....	83,983,746 28

Deducting redeposits, bars made and issued by one institution and deposited at another—the deposits were—

Gold.....	\$49,142,511 06
Silver.....	11,484,677 78
Total	60,627,188 84

COINAGE.

	Pieces.	Value.
Gold.....	3,186,699	\$50,442,690 00
Silver.....	13,273,380	5,983,601 30
Minor coinage.....	19,668,500	411,925 00
Total	36,128,579	56,838,216 30

BARS.

Fine gold.....	\$5,037,503 20	
Unparted gold.....	10,584,705 41	
Bars from standard British gold coin.....	5,922,836 23	
Bars from light United States gold coin.....	9,940,773 16	
		31,485,818 00
Fine silver.....	5,937,490 68	
Unparted silver.....	910,308 50	
		6,847,799 18
Total gold and silver.....		38,333,617 18

The distribution of the gold and silver bullion deposited and purchased, including redeposits, was as follows:

MINT UNITED STATES, PHILADELPHIA.

Gold deposits, (including abraded coin).....	\$24, 886, 452 59
Silver deposits and purchases.....	3, 060, 829 66
Total	27, 947, 282 25

MINT UNITED STATES, SAN FRANCISCO.

Gold deposits.....	\$22, 066, 181 66
Silver deposits and purchases.....	2, 868, 607 77
Total	24, 934, 789 43

MINT UNITED STATES, CARSON.

Gold deposits.....	\$2, 213, 041 96
Silver deposits and purchases.....	2, 875, 116 82
Total	5, 088, 158 78

MINT UNITED STATES, DENVER.

Gold deposits.....	\$962, 803 82
Silver deposits.....	26, 969 27
Total	989, 773 09

UNITED STATES ASSAY-OFFICE, NEW YORK.

Gold deposits.....	\$18, 611, 959 54
Silver deposits and purchases.....	6, 288, 761 58
Total	24, 900, 721 12

UNITED STATES ASSAY-OFFICE, BOISE, IDAHO.

Gold deposits.....	\$112, 466 54
Silver deposits.....	1, 791 52
Total	114, 258 06

UNITED STATES ASSAY-OFFICE, CHARLOTTE, N. C.

Gold deposits.....	\$8, 688 86
Silver deposits.....	74 69
Total	8, 763 55

The coinage at the different mints for the fiscal year was as follows:

Description.	Pieces.	Value.
MINT UNITED STATES, PHILADELPHIA.		
Gold coinage.....	1, 917, 160	\$26, 467, 330
Silver coinage, (trade-dollars).....	1, 058, 200	1, 058, 200
Silver coinage, (subsidiary coin).....	7, 948, 500	1, 904, 935
Minor coinage.....	19, 668, 500	411, 925
Total	30, 592, 360	29, 842, 390
MINT UNITED STATES, SAN FRANCISCO.		
Gold coinage.....	1, 168, 000	22, 302, 500
Silver coinage, (trade-dollars).....	2, 121, 000	2, 121, 000
Silver coinage, (subsidiary coin).....	1, 593, 000	429, 500
Total	4, 882, 000	24, 853, 000
MINT UNITED STATES, CARSON.		
Gold coinage.....	101, 539	1, 672, 860 00
Silver coinage, (trade-dollars).....	409, 700	409, 700 00
Silver coinage, (subsidiary coin).....	142, 986	60, 266 30
Total	654, 219	2, 142, 826 30
Total coinage.....	36, 128, 579	56, 838, 216 30

The bars made and issued at the mints and assay-offices were as follows:

MINT UNITED STATES, PHILADELPHIA.

Fine gold bars.....	\$95,316 21
Fine silver bars	319,821 49
Total	415,137 70

MINT UNITED STATES, SAN FRANCISCO.

Unparted gold bars.....	\$9,025,309 58
Unparted silver bars.....	209,071 53
Total	9,234,381 11

MINT UNITED STATES, CARSON.

Unparted gold bars.....	\$475,436 61
Fine silver bars	\$1,672,198 06
Unparted silver bars.....	672,401 49
Total	2,344,599 55
Total	2,820,036 16

UNITED STATES ASSAY-OFFICE, NEW YORK.

Fine gold bars.....	\$4,942,186 99
Bars from standard British gold coin	5,922,836 23
Bars from light United States gold coin.....	9,940,773 16
Fine silver bars	20,805,796 38
Total	3,945,471 13
Total	24,751,267 51

MINT UNITED STATES, DENVER.

Unparted gold bars	\$962,803 82
Unparted silver bars	26,969 27
Total	989,773 09

UNITED STATES ASSAY-OFFICE, BOISE, IDAHO.

Unparted gold bars.....	\$112,466 54
Unparted silver bars.....	1,791 52
Total	114,258 06

UNITED STATES ASSAY-OFFICE, CHARLOTTE, N. C.

Unparted gold bars.....	\$8,688 86
Unparted silver bars.....	74 69
Total	8,763 55

The amount in bars transmitted from the United States assay-office, New York, to the mint at Philadelphia for coinage was—

Gold	\$18,704,101 70
Silver.....	2,613,636 03
Total	21,317,737 73

Compared with the previous year, there was an increase of \$8,924,165.52 in the amount of gold operated upon, \$2,804,761.88 in silver operated upon, \$15,193,352.50 in gold coinage, \$3,037,805.80 in silver coinage, and \$10,816,086.57 in bars prepared.

EARNINGS AND EXPENDITURES.

The following summary exhibits the earnings and expenditures for the fiscal year:

EARNINGS.

	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	
Coinage charge	\$22,646 10	\$54,560 92	\$5,268 96	.....	.....	.....	.....	\$82,475 98
Parting & other charges	5,816 06	12,212 34	47,547 84	\$1,237 20	\$79,078 98	\$267 51	\$287 16	146,447 09
Gain by coinage of subsidiary silver coin.	79,270 92	28,653 79	3,250 77	.....	.....	.....	.....	111,175 48
Minor coinage profits	271,612 58	.....	.....	.....	.....	.....	.....	271,612 58
Sale of by products and old material.	688 56	.....	18,720 40	.....	17,613 40	.....	.....	37,022 36
Residue fluxes and sweepings.	1,043 83	.....	7,871 29	1,178 31	324 59	.....	.....	10,418 02
Medal profits	4,018 80	.....	.....	.....	.....	.....	.....	4,018 80
Surplus bullion, (melting and refining.)	.....	.....	.....	.....	22,142 16	.....	.....	22,142 16
Assay of ores	147 75	.....	.....	.....	300 00	.....	.....	447 75
Total earnings	385,244 60	95,427 05	82,659 26	2,415 51	119,459 13	267 51	287 16	685,760 22

EXPENDITURES.

	Mints.				Assay-offices.			Total.
	Philadelphia.	San Francisco.	Carson.	Denver.	New York.	Charlotte.	Boise.	
REGULAR ORDINARY ACCOUNT.								
Salaries	\$34,300 00	\$26,000 00	\$16,593 56	\$9,679 35	\$20,700 00	\$2,700 00	\$5,400 00	\$115,372 91
Wages	143,476 20	252,907 98	81,491 12	15,313 00	85,305 06	292 00	3,000 00	581,785 36
Contingent	53,977 80	70,411 97	103,562 94	5,000 00	55,000 00	908 24	2,464 90	291,325 85
Freight .....	.....	.....	.....	.....	.....	.....	.....	.....
Ores and coins	207 15	.....	.....	.....	.....	.....	.....	207 15
MINOR COINAGE ACCOUNT.								
Wages	120,454 83	.....	.....	.....	.....	.....	.....	120,454 83
Incidentals	30,529 96	.....	.....	.....	.....	.....	.....	30,529 96
Cent-metal	40,992 48	.....	.....	.....	.....	.....	.....	40,992 48
Freight	13,358 16	.....	.....	.....	.....	.....	.....	13,358 16
Difference between assay value of sweeps sold and amount realized..	1,487 05	.....	2,320 24	.....	4,201 79	.....	.....	8,009 08
Wastage	*29,393 06	6,717 12	5,906 02	.....	.....	.....	.....	42,016 20
Total expenditures.	468,176 69	356,037 07	209,873 88	29,992 35	165,206 85	3,900 24	10,864 90	1,244,051 98

* This item embraces wastage at Philadelphia Mint for fifteen months.

A moderate increase in the expenditures of the mints having taken place in the last two years, it is deemed necessary to explain the cause of the same, and which will appear from an examination of the annexed

table, presenting the operations on gold and silver during the last fiscal year, and the average of the ten years ended June 30, 1872:

Period.	Amount operated upon.		Coinage.	
	Gold.	Silver.	Gold.	Silver.
Fiscal year ended June 30, 1874	\$68,861,594 97	\$15,122,151 31	\$50,442,690	\$5,983,601 30
Average for ten years, ended June 30, 1872.....	31,935,284 25	3,042,346 36	22,786,289	1,275,623 90

Period.	Bars prepared.			
	Fine gold and bars of standard or above.	Unparted gold.	Fine silver.	Unparted silver.
Fiscal year ended June 30, 1874	\$20,901,112 59	\$10,584,705 41	\$5,937,490 68	\$910,308 50
Average for ten years, ended June 30, 1872.....	6,408,656 35	2,401,603 43	834,516 57	567,492 50

A comparison of the operations for the last fiscal year with the average result of the ten years ended June 30, 1872, will show the following percentages of increase:

	Per cent.
In gold operated upon, about	115
In silver operated upon, about	397
In gold coinage, about	121
In silver coinage, about	369
In fine gold bars, about	226
In unparted gold bars, about	340
In fine silver bars, about	611
In unparted silver bars, about.....	60

The above statement exhibits a great augmentation of business under the coinage act, and shows that the usefulness of the mints has been very much increased under the new organization.

RECOINAGE OF LIGHT GOLD COIN.

The recoinage of light gold coins, under the provisions of the fourteenth section of the coinage act, was continued at intervals during the fiscal year.

The following statement exhibits the recoinage from the 1st of July, 1872, to the 30th of June, 1873:

Tale value.	Net value.	Weight.			Loss.				Percentage of loss.	
		Standard.	Before melting.	After melting.	By recoinage.	By abrasion.	In melting.	By dirt.	In recoinage.	By abrasion.
<i>Dollars.</i>	<i>Dollars.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Ounces.</i>	<i>Dollars.</i>	<i>Ounces.</i>	<i>Oz.</i>	<i>Oz.</i>		
32,717,189 50	32,323,620 52	1,758,542.93	1,748,879.85	1,748,379.76	193,568.98	9,669.08	500.09	249	(*)	(*)

* Over one-half per cent.

The loss by abrasion is shown to have been but little over one-half of one per cent., and much less than the rate given by the best writers as the average loss on coins from that cause.

The renovation of the gold coins is now about complete, except as to the light or worn pieces in circulation in the Pacific coast States and Territories; and if some provision were made for their withdrawal, the entire gold coinage would then be in good condition. It would appear to be true policy to have the coins referred to withdrawn from circulation; and if such withdrawal is to be at the expense of the public Treasury, as recommended in my last annual report, they should be received only at the mints, where the necessary time and means can be taken to detect and exclude such coins as have been artificially reduced in weight.

Provision should be made for their withdrawal before the resumption of specie payments, as after resumption such coins will naturally find their way east and enter into circulation, and when a loss is sustained upon any of them it will fall upon individuals who may not have the means of ascertaining their actual weight.

In connection with this subject, it should be remarked that the reduction in the weight of coins for fraudulent purposes has not been carried on to any extent in this country.

COINAGE FOR FOREIGN GOVERNMENTS.

Under the provisions of the act approved January 29, 1874, authorizing coinages to be executed at the mints for any foreign government applying for the same, applications for the execution of certain coinages have been received from two governments, and are now under consideration by the proper authority.

TRANSFER OF STAMPED MINT-BARS TO THE TREASURY.

An act authorizing in effect the keeping of part of the funds in the Treasury in the form of stamped mint-bars, and the application of the same to the redemption of coin-certificates or in exchange for gold coins at not less than par, and not less than the market-value, having been passed at the last session of Congress, an amount of such bars sufficient for any probable demand that may arise was by your order transferred from the bullion-fund of the assay-office in New York to the office of the assistant treasurer in that city. These bars, if not required by the public for commercial purposes, will be convenient for the Treasury to have coined into the smaller denominations of gold coin, should it at any time require the same, and which may be probable, as the gold coinage of late years, or since the suspension of specie payments, has been mainly in double eagles, and that denomination constitutes almost entirely the amount now in the Treasury.

PROBABLE DEMAND FOR COINAGE OF SMALL GOLD COINS.

Whenever the specie basis shall have been reached, a large coinage of the half and quarter eagles, will be necessary, but the mints can manufacture the same as rapidly as would be required or the bullion could be supplied for the purpose. We have now six different denominations of gold coin, which is a greater variety than is required. This being the case, and the three-dollar piece corresponding so nearly, as to weight, value, and size, with the quarter-eagle, and rarely used, its coinage

should be discontinued. The gold dollar is not a convenient coin, on account of its small size, and it suffers more proportionably from abrasion than larger coins. Its issue should, therefore, be confined to actual demands for it by depositors of bullion, and the requirements for change and retail transactions should be met with silver coin.

THE TRADE-DOLLAR.

The coinage of trade-dollars during the fiscal year amounted to \$3,588,900, the greater portion of which were exported to China, where they found a ready market, and continue to grow in favor for trade and exchange purposes. Owing to the limited capacity of the mints on the Pacific coast, we have not been able to meet the demand for these coins. The increased capacity of the new mint in San Francisco, to which operations will soon be transferred, and the addition of new machinery and appliances at the Carson mint, will enable us to meet the demand for all the coin, both gold and silver, which may be required on that coast for circulation and export.

The total issue of silver dollars from the organization of the mint to the 1st of April, 1873, at which time, under the provisions of the coinage act, their coinage was discontinued, amounted to a little over \$8,000,000. Adding \$1,378,500, the amount of trade-dollars coined during the first quarter of the current fiscal year, to the coinage for the year ended June 30, 1874, gives the issue as more than half of the total coinage of the old silver dollar during a period of nearly eighty years. Attention is invited to a memorandum in the appendix from the superintendent of the San Francisco mint, containing some interesting information in relation to the course of the trade-dollar.

PROPOSED ISSUE OF A TWENTY-CENT COIN.

A bill authorizing the coinage of a twenty-cent silver piece passed the Senate at the last session of Congress, but was not considered in the House of Representatives for want of time. The issue of a coin of that denomination will not only be in accordance with our decimal system of money, but will remove a difficulty in making change which now exists upon the Pacific coast and in Texas, where the five-cent copper-nickel coins do not circulate, and where it was formerly the practice to apply the term "bits," "two bits," and "four bits," respectively, to the fractions of the Spanish dollar which circulated there. The custom appears to continue, notwithstanding those coins have disappeared from circulation. Accordingly, if a payment of one bit is to be made, and a twenty-five cent coin be used for the purpose, a ten-cent coin (one bit) is returned as the proper change, five cents being lost in the transaction by the purchaser. The issue of a twenty-cent coin will no doubt remove this difficulty. It may be added that, although this "bit" system appears to be quite an unimportant matter, few visitors to the Pacific coast fail to suffer some vexation at least from its existence.

Inquiry is occasionally made as to why the coinage of the silver five-cent piece was discontinued. The reason appears to have been that it would, on the resumption of specie payments, be likely to expel from circulation and drive into the Treasury for redemption the five-cent copper-nickel coins. At first glance this may appear improbable, but when it is considered that the original law authorizing the issue of

the copper-nickel five-cent coin provided for its redemption in lawful money of the United States, it will be seen that there must come a time when it will be superior to the five-cent silver coin, and for the reason that it will be exchangeable for notes redeemable in gold coin. The silver coin, which would have a greater nominal than intrinsic value, and not redeemable in lawful money, or gold coin, would become the inferior currency.

The five-cent copper-nickel coin having been issued to the extent of over \$5,000,000, and the amount being sufficient for a token coin of that denomination, the provision of law discontinuing the issue of the five-cent silver coin appears to have been proper.

THE ACT FIXING THE CUSTOM-HOUSE VALUATION OF THE POUND
STERLING AND PAR OF EXCHANGE WITH GREAT BRITAIN.

The present report being the first one made since the act of March 3, 1873, establishing the custom-house valuation of the sovereign or pound sterling, and fixing the par of exchange with Great Britain, went into operation, some reference to the provisions, operation, and effect of the same would appear to be proper.

The first section prescribes as a rule that the value of foreign coin expressed in the money of account of the United States shall be that of the pure metal of such coin of standard value, and that the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the first day of January by the Secretary of the Treasury.

The second section declares that in all payments by or to the Treasury, whether made here or in foreign countries, where it becomes necessary to compute the value of the sovereign or pound sterling, it shall be deemed equal to four dollars eighty-six cents six and one-half mills, and that the same rule shall be applied in appraising foreign merchandise imported, where the value is by the invoice in sovereigns or pounds sterling, and in the construction of contracts payable in sovereigns or pounds sterling. It also declares that valuation to be the par of exchange between Great Britain and the United States.

The third section repeals all acts and parts of acts inconsistent with the foregoing provisions.

In order to comply with the provisions of the first section, it became necessary to obtain accurate information in relation to the standard coins of the various nations of the world, and for that purpose inquiries as to the unit of the money of account of foreign countries respectively, and the amount of pure gold or silver declared by law to represent the same, were made in the form of a circular-letter addressed through the Department of State to the representatives of the United States in foreign countries. The information asked for was courteously furnished by the proper official authorities of the different nations; and after being received, the estimation of values by the Director of the Mint, and proclamation of the same by the Secretary of the Treasury, were made.

In converting invoices of foreign merchandise stated in foreign moneys of account, into the money of account of the United States, it became necessary to make such conversion according to values ascertained under the rule so broadly laid down in the first section of the law. The employment at the custom-houses of the values thus ascertained led to some dissatisfaction, the duties being increased, not in proportion to the slightly-enhanced valuation of the coins, but by an

artificial rule in laying duties, and appeals in certain cases were taken, one of which, involving the value of the franc, was recently tried before the United States district court of the southern district of New York, and decided adversely to the United States, the court holding that the first section of the act of March 3, 1873, and the act of March 22, 1846, fixing the value of the franc at 18.6 cents, do not cover or embrace the same subject, and that the last-named act is not repealed. The case has been appealed, and, should the decision be affirmed by the Supreme Court, a return to the old valuation on all foreign coins except the pound sterling would necessarily follow. It is probable, however, that Congress would, in that event, pass an explanatory law or revise and correct the undervaluations. The question being one of a technical character, a brief reference to the history of the old valuations and the principle on which the new rule of valuation is based appears to be proper.

The valuations under former laws were based upon the assay of actual coins which had been in circulation for a number of years, and were reduced by the attrition of circulation so as not to represent the values they were originally intended to denote. The valuation of coins under the system of assays controlled the subject for the first forty years of the Federal Government, during which time foreign coins were a legal tender at their intrinsic value, and receivable for duties. When received by the United States, however, it was provided that they should be sent to the Mint for coinage under our monetary system, and this being the case, it was necessary that the value fixed on such coins should not exceed the actual value of the bullion they contained, or otherwise a loss would have occurred in the recoinage. This was the starting point of undervaluation in connection with the collection of customs duties. When, in 1857, all acts making foreign coins a legal tender in this country were repealed, and we no longer had to deal with such coins *as money*, the system at once became defective.

Under the new act, the basis of valuation being the quantity of pure metal contained in foreign coins of standard value, expressed in the money of account of the United States, it is necessary, before proceeding further, to explain the true meaning of the words "coin of standard value." Briefly stated, a coin of standard value is one representing the unit of the money of account, or its multiples and divisions, and containing the exact quantity of pure metal prescribed by the law authorizing its issue. The term also applies to a coin, the bullion and nominal value of which are the same, as against a coin from which seignorage has been taken, and whose nominal value exceeds its bullion value. In estimating the value of the standard coins of the world, we are therefore practically required to deal with legally-established standards, and not, as under former laws, with individual coins, which may be more or less diminished in weight.

Under former laws, the undervaluation of the sovereign or pound sterling was only about one-half of one per cent., while in the case of the franc of France it was much greater, amounting to nearly four per cent. The fact that so great a difference existed between the valuation of coins of different countries showed conclusively that legislation was necessary, and the establishment of a rule for ascertaining values, based on sound principle and universal in its application, appeared to be the most simple and just remedy.

It will, of course, be understood that the undervaluation of foreign coins leads to a corresponding reduction in the proper assessable surface of invoices of foreign merchandise, and diminishes the duties to be paid to the Government. The increase of the assessable surface of in-

voices under the new law is the real and only cause of complaint on the part of importers, who claim that it exacts from them duties in excess of the amount contemplated by the laws under which they are assessed.

Under the old laws, the sovereign or pound sterling was converted into United States money at the rate of \$4.84, while under the new law the rate is \$4.86.65. Invoices stated in francs, under the act of March 22, 1846, were converted at the rate of 18.6 cents to the franc, while under the new law the rate is 19.3 cents. The value of the sovereign and franc of the present day, as determined by recent United States Mint assays, is as follows:

New sovereign	\$4 86 $\frac{1}{2}$
Average worn pieces	4 85 $\frac{6}{10}$
Twenty francs	3 84 $\frac{7}{10}$

which gives the assay-value of the franc* as 19 cents 2 $\frac{3}{10}$ mills. These values correspond very nearly to the value as estimated on the basis of declared standards, and show that the objections which have been raised against the new law would not be removed if the values were to be fixed on the average assays of existing individual coins.

Reference should here be made, in connection with this subject, to the important changes which have taken place during the last three years in foreign money standards, and the complications likely to arise therefrom in the collection of customs duties. The new monetary unit of the German Empire is the gold mark, and which must, according to law, soon take the place of the monetary units long known as the thaler of North Germany, florin of South Germany, marc banco of Hamburg, and louis d'or thaler of Bremen, and in which invoices of merchandise exported to the United States continue to be stated. It is a well-known fact that monetary systems and monetary terms to which the people of any country have long been accustomed do not readily give way to new ones, even when penalties may be enforced, and it must be expected that invoices of merchandise exported from Germany will continue to be made for some time to come either in thalers or florins, unless exporters be required to make out their invoices in marks, on and after the law declaring the mark to be the unit of account becomes operative in all the states of the German Empire. The same remarks will apply to Spain, where the peseta has superseded or is to supersede the piece of eight reals as the monetary unit. These changes afford additional reasons in favor of a general rule of valuation based upon declared standards.

Much stress has been laid upon the fact that the second section of the law specifically fixes the value of the sovereign or pound sterling, and the inference has been drawn that the intention of Congress was to change only the valuation of that coin, and not alter the value of other foreign coins as fixed in the then existing laws, and this notwithstanding the fact that while, as before stated, the sovereign was undervalued only one-half of one per cent., some other coins, and notably the franc, were undervalued nearly four per cent.

When the reason for the special enactment relative to the sovereign or pound sterling is explained, it will be seen that the inference above referred to is incorrect. The old fictitious par of \$4.44 $\frac{1}{2}$ to the pound, and the complicated mode of computation which it rendered necessary, were objectionable and disadvantageous in many respects, and few per-

*No gold piece of one franc coined.

sons outside of dealers in foreign exchange understood the meaning of the quotation "sterling exchange, 109 $\frac{1}{2}$," while every one of ordinary intelligence readily comprehends the meaning of "sovereigns, \$4.86 $\frac{1}{2}$," the former having been under the old system the equivalent of the latter under the new. The quotation of 109 $\frac{1}{2}$ meant 9 $\frac{1}{2}$ per cent. on and added to \$4.44 $\frac{1}{9}$, the latter having been the value, at an early period of our colonial history, in Spanish silver dollars, of 240 pence British money.

The fictitious par of exchange on Great Britain above referred to had long been in use, and its voluntary abandonment appearing to be very improbable, prohibitory legislation, the intention of which should be clearly expressed, was deemed necessary. A separate section, embracing the necessary provision, was therefore enacted.

By reference to the following extract from the report of the Finance Committee of the Senate, on the bill reported by it, and which passed both houses without amendment, it will be seen that the committee ascertained the value of the sovereign under the rule laid down in the first section of the act to determine the value of foreign coins generally, and not from the assay of coins.

* * * * *

As 23.22 grains Troy is the weight of the pure gold in the standard dollar, and 113.006+ grains Troy the weight of the pure gold in the standard sovereign, the quotient resulting from dividing the second number by the first is the value of pure gold in the standard sovereign, as expressed in dollars and cents, which gives us \$4.86656+. This is the true or intrinsic value of the sovereign or pound sterling, as expressed in the standard dollar of the United States at the present time.

By what has been stated it will be seen that the true or intrinsic value of the sovereign of Great Britain, as expressed in the money of account of the United States, is \$4.86656; that the congressional valuation is \$4.84; and that the commercial valuation, known as the *par of exchange or technical par*, is \$4.44 $\frac{1}{2}$.

The first is the value of the pure gold in the sovereign, as expressed in dollars and cents; and, as a measure for the comparison of the moneys of the two countries is sought, that which will give the true value of the pure gold in their standard coins would seem to fill the requisite conditions.

The second is the valuation given by Congress, it being the average value of those actually tested in 1842. It is to be observed that it was the average worn or abraded British coin with which our standard coin was compared. Would it not be wiser to compare our standard coin with the British standard coin? If the British worn or abraded coin is taken as a standard, ought not our own worn and abraded coin to be compared with it?

It is the opinion of the committee that such a valuation should not be recognized by any of the Departments of the Government; and that they should use every means in their power abroad, as well as at home, to attain a system of exchange based on true or intrinsic values.

* * * * *

It therefore appears that the intention of Congress was to provide a general rule of valuation which should be applicable in all cases, and the value of the sovereign which was specifically fixed, but in accordance with the rule, was for the purpose of making the provision in relation to the par of exchange perfectly clear.

If the revenue system is so defective as not to admit of a correct valuation of foreign coins and moneys of account according to a just rule, applying equally in the case of all countries, and subject to alteration only when the money standard of a country is changed by law, it will be well to consider whether the remedy should not be found in the revision and correction of that system, rather than in a return to the old undervaluation of foreign coins.

The second section of the act prescribed the close of the year 1873 as the term for the discontinuance of the old rating of exchange, and prohibited contracts based upon the old fictitious par, but did not prescribe a rule for the quotation of sterling exchange.

In view of the important alterations in quoting sterling exchange, which the law contemplated, the Secretary of the Treasury, on the 17th of September, 1873, issued a circular inviting the attention of importers, exchange dealers, and the public generally to the provisions of the act, and recommended that exchange should be quoted in dollars and cents to the pound sterling, or in pence and fractions to the dollar; and as it was desirable that the change then about to be made in the United States should be adopted in Great Britain, copies of the circular, with an explanatory letter, were sent, on the 9th of October, 1873, to the Hon. A. G. Cattell, confidential agent of the Treasury Department in London, with a view to have the subject brought to the attention of the London Stock Exchange and bankers dealing in American securities. Copies of the letter and circular referred to, also the correspondence of Mr. Cattell with the London Stock Exchange, are given in the appendix, and furnish a complete history of the origin and effect of the old system and the reform lately effected in quoting American securities in London.

It will be seen from the papers referred to, that Mr. Cattell discharged the duty intrusted to him with zeal and fidelity, and with a very intelligent understanding of the subject, and that the suggestions of the Treasury Department received attentive and liberal consideration on the part of the London Stock Exchange.

The change contemplated by the law in quoting sterling exchange in the United States was brought about on the 1st of January last, and without affecting injuriously or embarrassing any interest.

The reform in the quotation of United States securities on the London Stock Exchange is certainly a long step toward a correct system, but is still somewhat defective. The change made was from valuing the dollar at 54 pence to its valuation at 48 pence, that is, \$5 per pound. Estimating by the standard of the coins, (pound sterling and dollar,) the pound is \$4.86656, and our law fairly fixes the ratio at \$4.8665. Manifestly, therefore, the stock exchange basis is an overvaluation of the pound, say $13\frac{1}{4}$ cents, or about $2\frac{3}{4}$ per cent. On such a basis, a United States security sold at *true par* must be quoted at $2\frac{3}{4}$ per cent. premium, since \$4.8665 plus $2\frac{3}{4}$ per cent. (\$.0133) gives \$5, the assumed par.

There appears to be no reason why London should fix a par at all, or why United States bonds may not be quoted, as our exchange now is, in dollars and cents to the pound, or in pence to the dollar, or, if a par must be established, an almost absolutely accurate one would be £15 = \$73.

THE COURSE OF SILVER BULLION.

At the time of the monetary disturbances, and consequent derangement of foreign exchanges in this country last autumn, the price of silver bullion, which had previously exhibited a declining tendency, suddenly fell from about $116\frac{1}{2}$ to $112\frac{1}{2}$ cents per standard ounce, gold, and the occasion was embraced to make such addition to the silver-bullion fund of the mints and assay-office in New York as was required for their

NOTE.—In projecting the law in relation to the par of exchange, value of sovereign, &c., and in the preparation of various documents explanatory of the same, I received valuable assistance from Robert Patterson, esq., of Philadelphia, for a number of years connected with the mint in that city, and which it affords me great pleasure to acknowledge.

operations, and to enable them to prepare and keep on hand a supply of silver coins sufficient to enable deposits and purchases of silver bullion to be promptly paid for, and to supply the Treasury with such sums as it might require in making its payments. When, a few months afterward, the exchanges became restored to their normal condition, the price of silver recovered to some extent, but has lately receded in the London market to $57\frac{3}{4}$ pence, against $61\frac{1}{4}$ pence, average rate in 1864. The price here is about $112\frac{1}{2}$ cents per standard ounce.

Although the decline in the value of silver, measured by gold, has been considerable, any appreciation beyond that arising from an advance in the rates of exchange on London, the principal bullion-market of the world, and which must be temporary, is not to be expected. It cannot recover its former relative value to gold while the mines of the United States and Mexico continue to yield so largely, and the large quantity existing in the form of demonetized coins in Germany remains undistributed.

The amount placed upon the market by Germany during the last year does not appear to have been large, and that sales in future will be so managed as to weaken the market as little as possible is quite certain, especially as any considerable further depreciation in value would make it impossible to carry out, without heavy loss, the German plan of the substitution of gold for silver as the standard of value and of over-valued or subsidiary silver coins in the place of the silver coins which were formerly the legal-tender money.

The relative value of the two metals will, of course, vary with the supply and demand, but the indications are that a new rate or proportion of, say, $16\frac{1}{2}$ to 1, will be practically established and continue with unimportant variations for some time to come, and this notwithstanding the fact that the proportion of $15\frac{1}{2}$ to 1 is the legal rate in the gold and silver, or double standard of the states of the Latin union, and at which provision is made for the withdrawal of the old silver coins formerly issued by the states now composing the German Empire. The relative value of $16\frac{1}{2}$ to 1 would enable us to purchase silver for coinage into half and quarter dollars and dimes at, say, $112\frac{1}{2}$ cents, gold, per ounce standard, and the coining rate under the law being 124 4-10 cents (or, to be exact, \$1.24416) per standard ounce, the gain or seignorage to the Treasury would be a fraction over 11.9 cents per ounce, or about $10\frac{1}{2}$ per cent. on the amount of gold employed in the purchase. This estimate excludes the cost of coinage, which, including wastage, may be stated at about 2 per cent., although 1 per cent. would probably cover all actual necessary expenses, as the mints could, when not otherwise engaged, execute the silver coinage without any increase in the working force ordinarily required and retained.

The above-stated facts show that the Government can at any time, unless there should be a material advance in the value of silver or depreciation in the gold-value of the paper dollar, (91.3 at this date,) supply itself with such an amount of subsidiary silver coin as it may require to pay out, at its nominal value, at about the same terms as a corresponding sum in paper currency could be obtained by the sale of gold coins. The bullion or export-value of subsidiary silver coins, with the price of silver bullion at $112\frac{1}{2}$ cents per ounce, standard, would be $90\frac{1}{2}$ cents to the dollar. Notwithstanding these coins are only worth, *as bullion*, $90\frac{1}{2}$ cents, gold, and about par, currency, the *market-rate* for them is 95 cents gold and $104\frac{1}{2}$ cents currency to the dollar. The difference is due to the demand being in excess of the supply, and would rapidly disappear if the market were freely supplied. The demand for

the coins appears to come from the Pacific coast and Texas, where they circulate as money. The first effect of any considerable issue of subsidiary silver coin would be the disappearance in the New York market of the difference between the bullion and market value of these coins. They would next be sent to the Pacific coast and Texas in such amounts as to compel merchants and others to avail themselves of the provision of law limiting the legal tender of such coins to \$5. After a time they would begin to enter more or less into general circulation in other sections of the Union, and, as the paper money approached parity with gold, gradually expel the fractional notes. The latter, being redeemable in United States legal-tender notes, will of course become as to subsidiary silver the superior currency, whenever the legal-tender notes become exchangeable at par for gold coins. They would even become a superior currency as to silver coins before the greenback had reached a parity with gold.

I have been particular to refer to the subject of the course of silver bullion, and its issue in the form of subsidiary silver coin, for the reason that the provision of the coinage law which authorizes the payment in silver coins for silver bullion purchased for coinage by the mint at Philadelphia and assay-office, New York, expires by its own limitation on the 12th day of February next, after which subsidiary coins can be procured from the mints only in exchange for gold coins at par. The provision of law above referred to should not, in my opinion, be re-enacted or extended. The issue of subsidiary and token coins should be entirely under the control of the Government, and kept within such limits as will protect the public from the inconvenience and loss which would attend a redundant issue.

Whenever subsidiary or overvalued silver or token coins of any description are issued, two things are of vital importance, and should be observed:

First. A proper limitation as to the amount for which they are to be a legal tender.

Second. The amount of issue limited to the requirements of the public for change.

The latter is the only purpose for which such coins are designed to be used, and this can be effectually attained by their issue only in exchange at par for coin of the standard metal, (in this country, gold.)

The restriction as to the mode of issue applies particularly to times when gold, and not notes based upon debt, as now, shall form the basis of currency. Before we reach that basis, however, the Government may manufacture on its own account, and under favorable circumstances pay out, silver coins, at its pleasure and convenience, to the extent required to meet any legitimate demands for the same. In Great Britain subsidiary silver coin is manufactured exclusively on government account, and furnished to the public in exchange for gold coins at par, and in Germany and the countries of the Latin and Scandinavian money unions the manufacture is also exclusively on government account, but the issue is fixed *per capita*.

It is not within the province of this report to consider the question of the withdrawal of the fractional notes and the substitution of subsidiary silver coins in their place. The withdrawal would be the payment of a loan without interest and the substitution of money having intrinsic value. The determination of the proper time to commence the preparation in that way for a specie basis, as well as the policy and expediency of the measure, will no doubt receive due consideration by the proper authority. As to the amount of subsidiary silver coins

which would probably be required, some idea may be obtained from the experience of other countries.

The issue in Germany is to be 10 marks, equal to about \$2.38, *per capita*—population, 41,060,695; in France, 6 francs *per capita*, exclusive of the five-franc piece, which is a full-valued coin and an unlimited legal tender. Having presented the subject, as I trust, in a manner sufficiently clear, so far as it is of a technical character and connected with the course of silver bullion, I dismiss it with the remark that the mints are, or soon will be, in condition to meet in a reasonable time all the requirements of the country for coin, and which of course would be augmented when it shall be determined to withdraw the fractional currency.

MONETARY STANDARDS.

No change in monetary standards has taken place since my last annual report, although the question of changing from silver to the single gold standard has been discussed in the Netherlands. It may also be mentioned that one or more members of the Latin monetary states union appear to favor the same change, and, as a concession thereto, some restrictions have been placed on the issue of the five-franc silver coins. The Latin union has the double standard of silver and gold, valued in the coinage as $15\frac{1}{2}$ to 1, but the only silver coin issued under that valuation is the five-franc. The relative market-value of the two metals being nearly $16\frac{1}{2}$ to 1, inevitably leads to some derangement of exchanges.

In this connection it is proper to note the issue of a new gold coin by the Austro-Hungarian Empire, and stamped "eight florins—twenty francs." It is of the same value as the twenty-franc coins of the states of the Latin union. As the silver florin continues to be the coined representative of the monetary unit of the empire, the "eight florin—twenty-franc piece" must be regarded as a trade coin, even though it practically regulates exchanges and measures the depreciation of the paper florin. The issue of the new gold coin would appear to indicate the adoption at no distant day of the gold standard by that empire and an assimilation of its coinage to that of the Latin union.

Official notice was published by the Danish minister, on the 1st of September, 1874, that the terms of the common-money system of the three Scandinavian kingdoms, and which is based upon a common gold standard, will take effect in Denmark on the 1st of January, 1875, and that all financial obligations entered into on and after that date shall be done on the basis of the new-money system, and all public and private payments shall be in accordance with the unit of value of that system, viz, the gold crown of 100 oere, (\$0.268.)

The custom of assaying at our mints such foreign coins as come under notice has been continued, and the results embraced in the tables of foreign coins in the appendix. These tables embracing only what may be termed coins of commerce, a separate table is appended, giving the coins representing the monetary units, divisions, and multiples, as well as subsidiary issues of all countries as far as we have been able to obtain accurate information. All the replies to the circular in relation to the money of account and coins of foreign countries which were not received in time for my last annual report, are embraced in the appendix.

ANNUAL ASSAY AND TEST COINS.

The rigid care observed in the issue of the coinage is probably unknown to the general public, and a reference to the tests adopted to in-

sure conformity to the lawful standard of weight and fineness, and as exhibiting the responsibilities of the officers intrusted with the coinage, appears to be proper.

It will be sufficient to state that, when coins are ready for delivery, a certain number of pieces are indiscriminately taken and immediately sealed up and placed in a box or chest, denominated the "pyx," closed by two different locks, the keys of which are in the possession of the superintendent and assayer, so that neither can have access to its contents without the presence of the other. These reserved coins, after the close of the year, are submitted to a critical examination by a commission constituted by law for that purpose. The details of the examination of coins reserved during the calendar year 1873 appear in the extract from the report of the commission appended to this report.

In addition to the test above described, sample pieces, taken indiscriminately from certain deliveries in each month, are assayed under the instructions of the Director, and the result reported to him, and the officers whose work is under trial, one mint assaying upon another. This last check on the coinage, and which ascertains whether the weight and fineness conform to the legal standard, also embraces the testing of the gold coins for silver, and silver for gold, and was inaugurated under the new organization of the mints. Under this system of test assays we satisfy ourselves, from time to time, that no more silver passes off in the alloy of gold coins than is allowed by law, and gold contained in silver bullion, and silver in gold bullion, is separated as closely as can be done at a profit.

In order to make this subject clear to those not familiar with mint-terms, it may be stated that nearly all gold bullion as it comes from the mines contains more or less silver, which has to be separated before the gold bullion can be alloyed with copper to bring it to the legal standard for coinage. As the silver cannot, however, all be parted at a profit from the gold, the law permits it to constitute one-tenth of the alloy of gold coins, but without valuation. In the case of silver bullion containing gold, the regulations require it to be separated from the silver to the extent to which it can be done with advantage to the depositor or the Government; that is to say, the gold is separated from the silver in all cases where its value equals or exceeds the expense of the operation. The test made, as described, shows that the gold coins contain only a small portion of the silver allowed by law to remain as alloy, and that where gold is present in the silver coins it amounts to only a trace.

It should also be added, that in assaying fine gold before adding the alloy (copper) and gold ingots for coinage at the different mints, and in the test assays of coins by the assay commission, the gold is reported to the one-ten-thousandth part, while in the case of crude bullion fractions between the whole and half thousandths are disregarded.

The reason for the distinction in reporting fine and crude bullion is, that the one is free from all base metals, while the other may, and often does, contain base metals and foreign substances, and which render it proper to disregard the minute fractions as stated.

In making assays of gold only a small quantity, but such as will represent the whole mass to be tried, is taken for the purpose. The normal weight now generally adopted for a gold assay is the demigram; not quite eight grains troy. This stands for one thousand, and there is a series of lesser weights down to one-thousandth or degree, and which is again divided into tenths. In the French mint gold is reported to the one-ten-thousandth degree; also at the mint at San Francisco, as re-

spects deposits of fine gold. Some discretion is usually exercised by assayers in this and other countries as to the reporting or disregarding of the last division or smallest weight. The assay-beam used in weighing is so constructed as to be of the utmost precision and delicacy, and so fine is the adjustment, that it is sensible to less than the twentieth of a milligram, or the one-tenth of a thousandth of the unit or normal weight of the assay.

SPECTROSCOPIC ASSAY.

As the question of assaying by the aid of the spectroscope has lately engaged the attention of the assay department in the Mint at Philadelphia and assay-office New York, as also of the royal mint in London, and elsewhere, it gives me pleasure to place in the appendix interesting statements on the subject, prepared at my request by William E. Du Bois, esq., assayer of the Philadelphia Mint, and Herbert G. Torrey, esq., assayer of the New York assay-office, and obligingly transmitted by the superintendents of those institutions.

It may also be interesting to state that a number of assays, made at the Philadelphia Mint of the fine gold used for proofs in the London mint, lately sent for that purpose with a courtesy and confidence which it is very pleasant to acknowledge, have proven the exact correspondence of their proof-gold with ours. The same thing is occasionally done among our own mints, and with a like result.

It is gratifying to find in the ample and able reports of the London mint that they do not confine themselves to details of their own work, but look abroad and collect whatever is important of the doings of other mints or of the coinage-enactments of other countries. The same course is pursued here.

The precious metals being universal standards of value, changes of coinages and in monetary systems must be regarded as of interest to all commercial countries.

AMOUNT OF SPECIE IN THE COUNTRY.

According to the official reports of the Treasurer of the United States and Comptroller of the Currency, there were held by the Treasury and national banks at the close of the fiscal year ended June 30, 1872—

In coin	\$98,389,864 49
*Estimated amount of coin in Pacific coast States and Territories at that time	20,000,000 00
And in the hands of bankers and people elsewhere.....	10,000,000 00
<hr/>	
Total specie fiscal year 1872-'73	128,389,864 49
Add to this two years' product of United States mines, at \$70,000,000.	140,000,000 00
Imports of coin and bullion for two years	49,695,343 00
<hr/>	
	318,085,207 49
Deduct amount exported during the two years ended June 30, 1874..	151,238,979 00
<hr/>	
Total estimated stock, June 30, 1874.....	166,846,228 49

The above estimate shows a gain in specie and bullion in the last two fiscal years of \$38,456,364, and the stock of specie to be about \$166,846,228.

*The estimate of the amount of coin and bullion in the States and Territories of the Pacific coast June 30, 1872, was prepared at my request by Mr. Louis A. Garnett, of San Francisco, one of the most intelligent and reliable authorities of the present day on the subject of the precious metals. His estimate was \$20,000,000 to \$25,000,000. I have taken the minimum amount.

The coinage of the mints from the 30th of June to 30th of September, 1874, amounted to \$13,192,332, mostly from bullion of domestic production.

It is impossible to estimate, even approximately, the amount of specie finding its way out of or into the country by private hands, and not embraced in the custom-house returns. It would be safe, I think, to offset one against the other.

The amount carried out of the country by persons visiting Europe is, there are reasons to believe, generally estimated too high, especially since the system of letters of credit has become so widely extended, and which, with bills of exchange, have rendered the carrying of coin from one country to another entirely unnecessary, particularly as respects the several countries which are associated in modern civilization.

On the other hand, the amount of coin brought into the United States by emigrants is probably underrated. That class of people are always disposed to carry a portion of their effects in the form of gold and silver coin, with the value of which they are familiar, and with the knowledge that the same will be freely received everywhere in exchange for any article they may require.

AMOUNT OF GOLD AND SILVER COIN AND BULLION IN THE WORLD.

Inquiries are frequently made as to the amount of gold and silver existing in the world in the form of coin and bullion, and as to the increase since the discovery of the mines of California and Australia. Anything like an accurate estimate upon the subject is utterly impossible, for although the annual production for several decades and the total coinages of different countries may be approximately stated, the fact that the amount of recoinnages, and of precious metals used in the arts during even the last twenty-five years, cannot be reliably ascertained, would render the estimate of no practical value. Such information as we have been able to obtain upon the subject will be found in the appendix, and which includes a communication and statements from R. W. Raymond, Commissioner of Mining Statistics. When all the replies to our circular of last year shall have been received the amount of the present production can be arrived at with reasonable accuracy. The opinion has often been advanced that the large amount of gold yielded by the mines of the United States and Australia has produced an engorgement in the markets of the world. That such was the effect during the first five years after these mines were opened and during which period the maximum production was reached, and that a general advance in prices followed, may be safely admitted; but the undeniable fact that leading countries, like the United States, Russia, Austria, France, and Italy, are compelled to use inconvertible paper-money, not from choice, but because they have not sufficient coin for a specie basis, would appear to show conclusively that there is not too much gold, and especially as no one country appears to possess a redundancy. This fact, and particularly when it is considered that the annual production of gold is gradually decreasing, should dispel any fears which may be entertained of its future decline in value relatively to land, labor, and commodities.

The world's stock of precious metals is generally estimated at from ten to twelve thousand millions of dollars, nearly equally divided as to the two metals. The estimate appears to be based on the assumption that the stock at the commencement of the fifteenth century amounted to two thousand millions, and that from eight to ten thousand millions have

since been added, principally from the mines of North and South America and Australia.

The present production of gold being estimated at one hundred millions and silver eighty millions, would give an annual addition to the accumulated stock of $1\frac{1}{2}$ per cent. The estimates of the earlier writers must be taken with a good many grains of allowance; and generally in connection with this subject, and its practical bearing upon the affairs of the present period, it may be proper to observe that there have been so many important changes in monetary systems and in the financial and industrial condition of different countries, as well as redistributions of specie, during the last half century, as to render the statements and conclusions on various points connected therewith contained in the old standard works comparatively useless.

The period referred to has been one of unparalleled activity and progress, and the utilization of steam and electricity in the intercourse of nations, and the great extension of international credits, have effected a complete revolution in the commerce of the world. These important changes have not, however, enabled the world to dispense with the precious metals as the common measure of value and medium of exchange. On the contrary, those metals remain in that respect, the same as they were at the commencement of authentic history, the only money of universal recognition and unlimited acceptance.

In this connection it affords me pleasure to acknowledge the courtesy of Baron Bussirré, director of the mint at Paris, who furnished this Office with valuable information in relation to the amount of coin in France.

In concluding this report, I desire to express my acknowledgments to the officers, clerks, and employés of the several mints and assay-offices, and to the clerks of the Bureau, for the faithful performance of their duties, and to which the satisfactory results of the largely-increased business of the Mint Establishment may be mainly attributed.

I have the honor to be, very respectfully,

H. R. LINDERMAN,
Director of the Mint.

Hon. B. H. BRISTOW,
Secretary of the Treasury.

Statement exhibiting the average weight, fineness, and value of foreign coins as determined by United States Mint assays.

EXPLANATORY REMARKS.

1. The weight is expressed in fractions of an ounce troy, agreeing with the terms used in the United States mints.

If it is desired to have the weight of any piece in grains, regard the thousandths of an ounce as integers, take their half, from which deduct four per cent. of that half, and the remainder will be grains.

The fineness is expressed in thousandth parts; *i. e.*, so many parts of pure gold or silver in 1,000 parts of the coin. The old carat system is generally abandoned, (except for jewelry,) but it may be worth while to say that $41\frac{2}{3}$ thousandths equal one carat.

3. The valuation of gold is at the legal rate of 25.8 grains, 900 fine, being equal to one dollar; or \$20.672 (nearly) per ounce of fine gold; with the deduction of coinage charge, $\frac{1}{4}$ of one per cent.

4. For the silver there is no fixed legal valuation, as compared with gold. The price paid at the mints varies according to demand and supply, but is stationary for considerable periods at a time, and is now 118 cents per ounce 900 fine, payable in subsidiary coin, at which rate the values are given in the table.

5. These tables generally give the one principal coin of each country, from which the other sizes are easily deducted. Thus when the franc system is used, there are generally gold pieces of 40, 20, 10, and 5 francs, all in due proportion. But in silver, the fractional coins are very often of less intrinsic value than the normal coin, proportionally. These are seldom exported.

GOLD COINS.

Country.	Denomination.	Gross weight.	Fineness.	Standard weight.	Value in United States gold coin after coinage charge of 1.5 of 1 per cent. has been deducted.
		Ounces.	Thous.ths.	Ounces.	Dolls. cts. mills.
Austria	Ponrfold ducat	0. 448	986	0. 4908	9 11 3
Do	Souverain, (no longer coined)	0. 363	900	0. 363	6 74 1
Do	4 florins, (new)	0. 104	900	0. 104	1 93 2
Belgium	25 francs	0. 254	899	0. 2537	4 71 0
Brazil	20 milreis	0. 575	916. 5	0. 5855	10 87 1
Central America	2 escudos	0. 209	853. 5	0. 1982	3 68 1
Do	4 reals	0. 027	875	0. 0262	0 48 7
Chili	10 pesos, (dollars)	0. 491	898	0. 4899	9 09 6
Colombia and South America generally	Old doubloon *	0. 867	870	0. 8381	15 56 1
Colombia	20 pesos, "Bogota"	1. 033	887	1. 013	18 90 2
Do	20 pesos, "Medellin"	1. 034	891. 5	1. 0242	19 01 6
Do	20 pesos, "Popayan"	1. 029	891. 5	1. 0192	18 92 2
Costa Rica	10 pesos	0. 476	858. 5	0. 454	8 43 0
Denmark	20 crown	0. 288	900	0. 285	5 34 7
Do	Old ten-thaler	0. 427	895	0. 4246	7 88 4
Egypt	Bedidlik, (100 piasters)	0. 375	875	0. 3673	4 96 3
England	Pound, or sovereign, (new) †	0. 2568	916. 5	0. 2615	4 85 6
Do	Pound, average, ‡ (worn)	0. 2563	916. 5	0. 2609	4 84 3
France	20-franc	0. 207	899	0. 2067	3 83 8
German Empire	New 20 marks	0. 256	900	0. 256	4 75 5
Do	Old ten thaler, (Prussian)	0. 427	903	0. 4284	7 95 5
Greece	20 drachms	0. 185	900	0. 185	3 43 5
India, (British)	Mohur, or 15 rupees †	0. 375	916. 5	0. 3818	7 08 9
Italy	20 lire	0. 207	899	0. 2067	3 83 8
Japan	20 yen	1. 072	900	1. 072	19 90 4
Mexico	Doubloon	0. 86735	870. 25	0. 8386	15 56 9
Do	20 pesos, (empire)	1. 086	875	1. 0558	19 60 3
Do	20 pesos, (republic, new)	1. 084	873	1. 0514	19 52 2
Netherlands	10 guilders	0. 215	899	0. 2147	3 98 6
New Granada	10 pesos, (dollars)	0. 525	891. 5	0. 520	9 65 5
Norway	20 crowns	0. 288	900	0. 288	5 34 7
Peru	20 soles	1. 0357	898. 75	1. 034	19 20 3
Portugal	Coroa, (crown)	0. 308	912	0. 312	5 79 5
Russia	5 roubles	0. 210	916	0. 2137	3 96 8
Spain	100 reals	0. 268	896. 5	0. 2668	4 95 4
Do	80 reals	0. 215	869	0. 207	3 85 6
Do	10 escudos	0. 27045	897	0. 2695	5 00 3
Sweden	Ducat	0. 111	975	0. 1202	2 23 2
Do	Carolin, (10 francs)	0. 104	900	0. 104	1 93 1
Do	New 20 crowns, (kroun)	0. 288	900	0. 288	5 34 7
Tunis	25 piasters	0. 161	900	0. 161	2 98 9
Turkey	100 piasters	0. 231	915	0. 2348	4 35 9

* The *doubloon* (doblon, or more properly *onza*, though not really an ounce Spanish) is now generally discontinued, and is seldom seen here. These figures answer as well for the doubloon of Peru, Chili, Bolivia, &c., and therefore this item stands for all. Popayan pieces were rather inferior.

† The sovereigns coined at Melbourne and Sydney, in Australia, and distinguished only by the mint-marks M and S, are the same as those of the London mint. Sovereigns generally are up to the legal fineness, 916½, (or 22 carats,) but we report to the half in all cases.

‡ The last coinage of *mohurs* was in 1862.

DIRECTOR OF THE MINT.

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SILVER COINS.

Country.	Denomination.	Gross weight.	Fineness.	Standard weight.	Value in subsidiary silver coin at 118 cts. per standard ounce.
		Ounces.	Thous'ths.	Ounces.	Dolls. cts. mills.
Austria	Old six-dollar	0.902	833	0.8348	0 98 5
Do	Old scudo crown	0.836	902	0.8378	0 98 8
Do	Florin, before 1858	0.451	833	0.4174	0 49 2
Do	New florin	0.397	900	0.397	0 46 8
Do	New union dollar	0.596	900	0.596	0 70 3
Do	Maria Theresa dollar, 1780	0.895	838	0.8334	0 98 3
Belgium	5 francs	0.803	897	0.8003	0 94 4
Do	2 francs	0.320	835	0.2968	0 35 0
Bolivia	New dollar	0.801	900	0.801	0 94 5
Brazil	Double milreis	0.8187	917.75	0.8348	0 98 5
Canada	20 cents	0.150	925	0.1541	0 18 1
Do	25 cents	0.1875	925	0.1927	0 22 7
Central America	Dollar	0.866	850	0.8178	0 96 5
Chili	Old dollar	0.864	908	0.8716	1 02 8
Do	New dollar	0.801	900.5	0.8014	0 94 6
China	Dollar, (English mint)	0.866	901	0.8669	1 02 3
Do	10 cents	0.087	901	0.08709	0 10 2
Denmark	2 rigsdaler	0.927	877	0.90331	1 06 5
Egypt	Piaster, (new)	0.040	755	0.0335	0 03 9
England	Shilling, (new)	0.1825	924.5	0.1874	0 22 1
Do	Shilling, (average)	0.178	925	0.1829	0 21 5
Do	Florin	0.365	925	0.3751	0 44 2
France	5 franc	0.8018	900	0.8018	0 94 6
Do	2 franc	0.320	835	0.2968	0 35 0
North German states	Thaler, before 1857	0.712	750	0.5933	0 70 0
Do	Thaler, (new)	0.595	900	0.595	0 70 2
South German states	Florin	0.340	900	0.340	0 40 1
German Empire	5 marks, (new)	0.804	900	0.804	0 94 8
Greece	5 drachms	0.719	900	0.7198	0 84 8
Hindustan	Rupee	0.374	916.5	0.380	0 44 9
Italy	5 lire	0.802	900	0.802	0 94 6
Do	Lira	0.160	835	0.1484	0 17 5
Japan	1 yen	0.8667	900	0.8667	1 02 2
Do	50 sen.	0.402	800	0.3573	0 42 2
Mexico	Dollar	0.870	903	0.8729	1 03 0
Do	Half-dollar	0.435	898.5	0.4343	0 51 2
Do	Peso of Maximilian	0.861	902.5	0.8633	1 01 8
Netherlands	2½ guilders	0.804	944	0.8433	0 99 5
Norway	Specie daler	0.927	877	0.9033	1 06 5
New Granada	Dollar of 1857	0.803	896	0.7994	0 94 3
Pern	Old dollar	0.866	901	0.8669	1 02 3
Do	Dollar of 1858	0.766	900	0.766	0 90 3
Do	Half-dollar of 1855-58	0.433	650	0.3127	0 36 9
Do	Sol	0.802	900	0.802	0 94 6
Portugal	500 reis	0.400	912	0.4053	0 47 8
Roumania	2 lei, (francs.) new	0.322	835	0.2987	0 35 2
Russia	Rouble	0.667	875	0.6484	0 76 5
Spain	5 pesetas, (dollars)	0.800	900	0.800	0 94 4
Do	Peseta, (pistareen)	0.160	835	0.1484	0 17 5
Sweden	Riksdaler	0.273	750	0.2275	0 26 8
Switzerland	2 francs	0.320	835	0.2969	0 35 0
Tunis	5 piasters	0.511	898.5	0.5101	0 60 2
Turkey	20 piasters	0.770	830	0.7101	0 83 7